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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 09/823,438
Filing Date: March 30, 2001
Appellant(s): EDWARDS ET AL.

Kevin Zilka
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 10/14/2005

appealing from the Office action mailed 08/05/2005.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

No amendment after final has been filed.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

6560632	CHESS et al	5-2003
5974465	WONG	10-1999

"Chapter Thirteen Performance Tuning," 01 Aug 2000, pp. 1-5. <http://www.mtsac.edu/-vzamora/cis19/chap13.htm>

"Using NetWare 3.12," 30 Nov 2000, pp. 1-43. <http://www.et.utt.ro/public/Docs/special%20Edition%20Using%20Netware%203.12/ch18.html>

"Reserved-checkout for Versioned Object," IBM Technical Disclosure Bulletin, March 1993, pp. 1-3.

McAfee Virus Scan for Windows 3.x, University of East Anglia 1997, <hhp://www.uea.ac.uk/itcs/docs/d31w31.pdf> pp. 1-13.

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

1. Claims 1-11, 17, 19-23, 25-29, 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chess et al (U.S. 6,560,632) and in view of Wong (US 5974465).

As per claims 1 and 19, Chess et al discloses a method, apparatus and virus scanner for prioritizing virus scan requests comprising checking a virus scan request to determine if scanning an object of the request is necessary; and placing the virus scan request on a queue in a priority order based on a characteristic of the virus scan request (see column 3 lines 42-56 where sending the file is sending a request for scanning to be done and column 3 lines 18-20 and column 5 lines 38-44 for the determining step).

Chess et al fails to disclose the characteristic including at least one of an identity of the user triggering the virus scan request, a type of the process accessing the object, a time stamp of when the virus scan request was received and an indication of a network node accessing the object wherein the virus scan request is prioritized based on at least one of the user identity being an administrator as compared to a regular

user the process type being an operating system as compared to a user application the time stamp being earlier than the time stamps of each scan request previously placed on the queues and the indication being that the object is accessed from a server console as compared to a network client.

However, Wong teaches prioritization based on the user (see column 4 lines 14-40).

At the time of the invention it would have been obvious to a person of ordinary skill in the art to use Wong's method of prioritization to prioritize the requests of Chess et al.

Motivation to do so would have been that administrator's applications are more important (see Wong column 4 lines 14-40).

As per claims 2 and 20, the modified Chess et al and Wong system discloses selecting a one of the virus-scan requests from the queue (see column 3 line 65 through column 4 line 5).

As per claims 3 and 21, The modified Chess et al and Wong system discloses the selecting is based on the priority order (see column 3 line 47 through column 4 line 5).

As per claims 4 and 22, the modified Chess et al and Wong system discloses the selecting is based on the characteristic of the virus scan request (see column 3 line 47 through column 4 line 5).

As per claims 5 and 23, the modified Chess et al and Wong system discloses scanning the object of the selected virus scan request (see column 4 lines 6-13).

As per claims 7 and 25, the modified Chess et al and Wong system discloses the priority order is further based on comparing the characteristic of the virus scan request with the characteristics of the virus scan requests previously placed on the queue (see column 3 lines 48-64).

As per claims 8 and 26, the modified Chess et al and Wong system discloses the priority order is further based on a parameter indicating which of the compared characteristics is given higher priority (see column 3 lines 48-64).

As per claims 9 and 27, the modified Chess et al and Wong system discloses the selecting is further based on comparing the characteristics of the virus scan requests placed in the queue (see column 3 line 48 through column 4 line 5).

As per claims 10 and 28, the modified Chess et al and Wong system discloses the selecting is farther based on comparing the characteristics of the virus scan requests placed in the queue with the characteristics of the previously selected virus scan requests whose objects are currently being scanned (see column 4 lines 9-13).

As per claims 11 and 29, the modified Chess et al and Wong system discloses the selecting is further based on a parameter indicating which of the compared characteristics is given higher priority (see column 4 lines 9-13).

As per claims 17 and 35, the modified Chess et al and Wong system discloses the scanning is necessary when a virus scan status indicates the object is not known to be virus free (see figure 3).

2. Claims 18 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over the modified Chess et al and Wong system as applied to claims 1 and 19 above, and further in view of McAfee (webpage).

As per claims 18 and 36, the modified Chess et al and Wong system discloses scanning is necessary when the object of the virus scan request is in not excluded from virus scanning, but fails to disclose the object being a directory.

However, McAfee teaches scanning a directory when it is not excluded from virus scanning (see the bottom of page 8).

At the time of the invention it would have been obvious to a person of ordinary skill in the art to apply the modified Chess et al and Wong's method for virus scanning to a directory as taught in McAfee.

Motivation to do so would have been to allow the user to scan a particular directory (see McAfee bottom of page 6).

3. Claims 37-41, 43-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over the modified Chess et al and Wong system as applied to claims 1 and 19 above, and further in view of "Reserved-Checkout for Versioned Object" IBM 1993 (herein after IBM).

As per claim 37, the modified Chess et al and Wong system fails to disclose at least two of the characteristics.

However, IBM teaches a method of prioritizing based on timestamps (see page 3).

At the time of the invention it would have been obvious to a person of ordinary skill in the art to use IBM's method of timestamp prioritization in the modified Chess et al and Wong priority based virus-scanning system.

Motivation to do so would have been to choose between objects with the same priority (see IBM page 3).

As per claim 38, the modified Chess et al, Wong and IBM system discloses selecting a one of the virus-scan requests from the queue (see column 3 line 65 through column 4 line 5).

As per claim 39, the modified Chess et al, Wong and IBM system discloses the selecting is based on the priority order (see column 3 line 47 through column 4 line 5).

As per claim 40, the modified Chess et al, Wong and IBM system discloses the selecting is based on the characteristic of the virus scan request (see column 3 line 47 through column 4 line 5).

As per claim 41, the modified Chess et al, Wong and IBM system discloses scanning the object of the selected virus scan request (see column 4 lines 6-13).

As per claim 43, the modified Chess et al, Wong and IBM system discloses the priority order is further based on comparing the characteristic of the virus scan request with the characteristics of the virus scan requests previously placed on the queue (see column 3 lines 48-64).

As per claim 44, the modified Chess et al, Wong and IBM system discloses the priority order is further based on a parameter indicating which of the compared characteristics is given higher priority (see column 3 lines 48-64).

As per claim 45, the modified Chess et al, Wong and IBM system discloses the selecting is further based on comparing the characteristics of the virus scan requests placed in the queue (see column 3 line 48 through column 4 line 5).

As per claim 46, the modified Chess et al, Wong and IBM system discloses the selecting is farther based on comparing the characteristics of the virus scan requests placed in the queue

with the characteristics of the previously selected virus scan requests whose objects are currently being scanned (see column 4 lines 9-13).

As per claim 47, the modified Chess et al, Wong and IBM system discloses the selecting is further based on a parameter indicating which of the compared characteristics is given higher priority (see column 4 lines 9-13).

As per claim 53, the modified Chess et al, Wong and IBM system discloses the scanning is necessary when a virus scan status indicates the object is not known to be virus free (see figure 3).

4. Claim 54 is rejected under 35 U.S.C. 103(a) as being unpatentable over the modified Chess et al, Wong and IBM system as applied to claim 37 above, and further in view of McAfee (webpage).

As per claim 54, the modified Chess et al, Wong and IBM system discloses scanning is necessary when the object of the virus scan request is in not excluded from virus scanning, but fails to disclose the object being a directory.

However, McAfee teaches scanning a directory when it is not excluded from virus scanning (see the bottom of page 8).

At the time of the invention it would have been obvious to a person of ordinary skill in the art to apply the modified

Chess et al, Wong and IBM's method for virus scanning to a directory as taught in McAfee.

Motivation to do so would have been to allow the user to scan a particular directory (see McAfee bottom of page 6).

5. Claims 55-59 are rejected under 35 U.S.C. 103(a) as being unpatentable over the modified Chess et al, Wong, IBM system as applied to claim 37 above, and further in view of "Chapter Thirteen Performance Tuning" (webpage)(hereinafter Performance) and further in view of Using NetWare 3.12 (webpage)(hereinafter NetWare).

As per claim 55, the modified Chess et al, Wong and IBM system fails to disclose using all of the characteristics for prioritization.

However, Performance teaches prioritization based on process types (see page 4) and Netware teaches prioritization based on network node type (see page 7).

At the time of the invention it would have been obvious to a person of ordinary skill in the art to use Performance's method of prioritization based on process types and NetWare's method of prioritization based on network node type in the modified priority based virus-scanning method of the modified Chess et al, Wong, and IBM.

Motivation to do so would have been to define and eliminate system bottlenecks (see Performance page 1) and to prevent the reception of user sent messages (see NetWare page 7).

As per claim 56, the modified Chess et al, Wong, IBM, Performance, and NetWare system discloses selecting a one of the virus scan requests from the queue (see Chess et al column 3 line 65 through column 4 line 5).

As per claim 57, the modified Chess et al, Wong, IBM, Performance, and NetWare system discloses the selecting is based on the priority order (see Chess et al column 3 line 47 through column 4 line 5).

As per claim 58, the modified Chess et al, Wong, IBM, Performance, and NetWare system discloses the selecting is based on the characteristic of the virus scan request (see Chess et al column 3 line 47 through column 4 line 5).

As per claim 59, the modified Chess et al, Wong, IBM, Performance, and NetWare system discloses scanning the object of the selected virus scan request (see Chess et al column 4 lines 6-13).

(10) Response to Argument

Chess in view of Wong

Group #1: Claims 1, 2, 5, 17, 19, 20, 23 and 35

Appellant argues that Chess merely suggests classifying queries or files already queued as opposed to placing requests on a queue in a priority order based on a characteristic of the request and further the classification process occurs after queuing as opposed to during queuing. However, Chess first teaches determining if scanning an object is necessary in column 5 lines 38-44, and further teaches prioritizing requests in column 3 lines 14-20 and 42-56. Where the sending of a file to be analyzed, where it is placed on queue, is equivalent to queuing a request that the file be scanned. The queued files are classified and clustered as part of the prioritization step. In order for the queued files to be classified and clustered as part of the prioritization step they must be taken off of the queue and then placed back onto the queue in the new prioritized order. This is because by definition a queue (taken from Microsoft Press Computer Dictionary Second Edition, 1994) is, "a multi-element data structure from which (by strict definition) elements can be removed only in the same order in which they were inserted." Therefore when the files are classified and clustered, as part of prioritization, the files must be taken off of the queue and placed back on the queue in the new

(prioritized) order so they can be removed and scanned in the prioritized order.

Appellant argues that Chess only determines an order of processing for the one or more representatives and therefore only the representatives are prioritized. The representatives in Chess are still requests being placed on a queue in a prioritized order. Furthermore after a scanning of representatives, the priority of the remaining requests are updated (see column 4 lines 6-13), which means all of the requests must be taken off the queue and placed back on the queue in the updated priority.

Appellant argues that Chess does not place the requests on a queue in a priority based on a characteristic of the request. As disclosed in Chess column 3 lines 53-56 the classifying, which is part of the prioritization, is done according to the type of digital object the files (requests) contain. Therefore a characteristic for which the requests are prioritized is the type of digital object they contain.

Appellant argues that Chess does not teach checking a virus scan request to determine if scanning an object of the request is necessary. However, Chess teaches determining if an object needs to be scanned in column 5 lines 38-44 where the described malicious file is described as a virus in column 3 lines 46-47.

Appellant argues that Wong fails to describe placing a virus scan in a queue based on a characteristic including an identity of the user triggering the request where the user identity is an administrator as compared to a regular user. As taught in Chess column 2 lines 18-21 either a person or a process within the computer can determine a file is suspect and send it for scanning. Wong teaches, in column 4 lines 14-40, prioritization based on the type of person. Therefore the combination of Chess and Wong teaches that a person (the administrator as compared to a regular user of Wong) is triggering the request and the priority is based on this characteristic. Appellant further argues that Wong merely teaches assigning priority based on types of applications or input from either a user or network administrator. In the combination of Chess and Wong this input is the scan request.

Appellant argues that Chess and Wong are non-analogous art because Chess relates to a distributed security system while Wong relates to a network data packet prioritization system. According to MPEP 2141.01(a), "the reference may be considered analogous art if subject matter disclosed therein is relevant to the particular problem with which the inventor is involved." In this case the problem to be solved is to improve the efficiency of processing requests. Wong relates to improving the

effectiveness and efficiency of processing time-critical data (see column 1 lines 34-36 and column 2 lines 10-20). Therefore Wong is relevant to the particular problem being solved so it is analogous art.

Group #2: Claims 3 and 21

Appellant argues that, in Chess, only the representatives are selected based on the priority. However, with a queue the objects must be taken off in the same order they are placed, therefore whenever an object is selected for scanning it is selected based on a priority.

Group #3: Claims 4, 9, 22 and 27

Appellant argues there is no disclosure, in Chess, of selecting based on a characteristic of the scan request. In Chess the files are classified and clustered based on a characteristic (see column 3 lines 48-56), therefore whenever an object is selected for scanning it is selected based on this characteristic.

Group #4: Claims 7, 8, 25 and 26

Appellant argues there is no disclosure, in Chess, of comparing the characteristic of the scan request with the

characteristic of requests previously placed on the queue. Chess teaches classifying queued requests based on a characteristic in column 3 lines 53-56. Chess further describes a comparing of characteristic during the updating in column 4 lines 6-13, where the system determines other queued files being in the same cluster as the one which was scanned, and these files were classified and clustered based on a characteristic.

Group #5: Claims 10, 11, 28 and 29

Appellant argues that Chess fails to disclose comparing the characteristics of the requests on the queue with the request currently being scanned. However, Chess teaches such comparison in column 4 lines 6-13, where the system determines other queued files being in the same cluster as the one being scanned, and these files were classified and clustered based on a characteristic.

Chess in view of Wong and further in view of McAfee

Group #1: Claims 18 and 36

Appellant argues these claims are allowable for the reason given above. This argument is not persuasive in view of the above response.

Chess in view of Wong and further in view of IBM

Group #1: Claims 37, 38, 41 and 53

Appellant argues that IBM does not teach placing a request on a queue in a priority based on a timestamp of when the request was received and the priority is based on the timestamp being earlier than the timestamps of each scan request previously placed on the queue. However on page 3 IBM teaches giving the object with the smallest timestamp the highest priority. Therefore in the combination with Chess and Wong the objects in IBM are the request for scanning of Chess, which will give a higher priority to the request with a timestamp with the smallest (earliest) timestamp.

Group #2: Claim 39

Appellant argues that, in Chess, only the representatives are selected based on the priority. However, with a queue the objects must be taken off in the same order they are placed, therefore whenever an object is selected for scanning it is selected based on a priority.

Group #3: Claims 40 and 45

Appellant argues there is no disclosure, in Chess, of selecting based on a characteristic of the scan request. In

Chess the files are classified and clustered based on a characteristic (see column 3 lines 48-56), therefore whenever an object is selected for scanning it is selected based on this characteristic.

Group #4: Claims 43 and 44

Appellant argues there is no disclosure, in Chess, of comparing the characteristic of the scan request with the characteristic of requests previously placed on the queue. Chess teaches classifying queued requests based on a characteristic in column 3 lines 53-56. Chess further describes a comparing of characteristic during the updating in column 4 lines 6-13, where the system determines other queued files being in the same cluster as the one which was scanned, and these files were classified and clustered based on a characteristic.

Group #5: Claims 46 and 47

Appellant argues that Chess fails to disclose comparing the characteristics of the requests on the queue with the request currently being scanned. However, Chess teaches such comparison in column 4 lines 6-13, where the system determines other queued files being in the same cluster as the one being scanned, and

these files were classified and clustered based on a characteristic.

Chess in view of Wong further in view of IBM and further in view of McAfee

Group #1: Claim 54

Appellant argues these claims are allowable for the reason given above. This argument is not persuasive in view of the above response.

Chess in view of Wong, further in view of IBM, further in view of Performance and further in view of NetWare

Group #1: Claims 55, 56 and 59

Appellant argues that Performance suggests processes that are accessible by user and system applications, and fall short of a process that specifically access the object. Chess teaches that an application can access and send the object to be scanned (see column 2 lines 18-21); therefore the priorities given in Performance can be applied to the priorities of Chess. Appellant further argues that Performance fails to teach the process type being an operating system process, however Appellant is directed to number 25-31 of page 4.

Appellant argues that Netware fails to disclose the characteristic includes an indication of a network node accessing the object and the priority is based on the indication is from a server console as compared to a network client. Chess teaches that a client can access and send the request to the scanning center and it is well know that a network has clients and servers. It would, therefore, been obvious to change the priority based on whether the request was from a client of server in order to prevent receipt of messages (requests) from clients as taught by Netware.

Group #2: Claim 57

Appellant argues that, in Chess, only the representatives are selected based on the priority. However, with a queue the objects must be taken off in the same order they are placed, therefore whenever an object is selected for scanning it is selected based on a priority.

Group #3: Claim 58

Appellant argues there is no disclosure, in Chess, of selecting based on a characteristic of the scan request. In Chess the files are classified and clustered based on a characteristic (see column 3 lines 48-56), therefore whenever an

object is selected for scanning it is selected based on this characteristic.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Michael J. Pyzocha

Conferees:

Emmanuel Moise

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